In the Claims

Claims 1-49 (canceled).

5052. (Currently amended) A process to produce a branched alcohol composition comprising: contacting an olefin composition having an average carbon number in the range of 3 to 18 having the formula

$$CH_{3} \xrightarrow{R_{1}} CH = R_{2} + HO - CH_{2} - CH_{2} - CH_{2} - OH$$

where R₁ represents hydrogen or a hydrocarbyl group having from 1 to 3 carbon atoms, R₂ represents a hydrocarbyl group having from 1 to 7 carbon atoms where the linkage with the CH group is by double bond, and x is a number ranging from 0 to 16, with 1,3-propane diol in the presence of a catalyst effective to react the olefin with the diol under conditions effective to produce the branched alcohol composition.

(Currently amended) The process of claim 5052 wherein the catalyst is an acid catalyst selected from the group consisting of Bronsted acids, Lewis acids, Friedel-Crafts catalysts, zeolites, and ion exchange resins.

5254. (Currently amended) The process of claim 5153 wherein the average carbon number of the olefin composition is in the range of 6 to 18.

5355. (Currently amended) The process of claim 6153 wherein the diol and olefin is contacted at a temperature within the range of from 50 °C to 250°C.

5456. (Currently amended and withdrawn) A process to produce a branched alkyl ether sulfate composition comprising:

- a) contacting an olefin having an average carbon number in the range of 3 to 18 with 1,3-propane diol in the presence of a catalyst effective to react the olefin with the diol thereby producing a branched alcohol composition; and
- b) contacting the branched alcohol composition with a sulfating agent under conditions effective to produce a branched alkyl ether sulfate composition.